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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,030	03/05/2002	Rogelio Areal Guerra	A34839-PCT-USA	8212
21003	7590	01/11/2006	EXAMINER	
BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			MCKANE, ELIZABETH L	
			ART UNIT	PAPER NUMBER
			1744	
DATE MAILED: 01/11/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/980,030

**Applicant(s)**

GUERRA, ROGELIO AREAL

**Examiner**

Leigh McKane

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,64,65,67-97 and 99-125 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 64, 65, 67-81, 85, 86 is/are allowed.
- 6) ☒ Claim(s) 82,87-94,97,99-104,112,114,117,118 and 121 is/are rejected.
- 7) ☒ Claim(s) 95,96,105-111,113,115,116,119,120,122 and 123 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 70, 82, and 90 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 70, the term “specifically” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

In claim 82, the recitation of a “connection duct of solvent bottle to the rest of the system” renders the claim vague and indefinite because claim 1, from which claim 82 depends, only recites a connect between the solvent bottle and the autoclave.

In claim 90, it is confusing as to whether the water content of the cellulose-material is that before or after treatment.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 87-94, 99, 104, 112, 114, and 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eggersdorfer et al. in view of Smith (US 4,860,685).

Eggersdorfer et al. teaches a method of deacidifying paper wherein the paper is initially at atmospheric pressure, placed into a chamber which is placed under a vacuum to remove air (oxygen) therefrom, and a deacidifying agent and carrier conveyed into the autoclave to impregnate the paper. See col.4, line 66 to col.5, line 18. The carrier can be a lower alcohol, such as methanol. See col.1, lines 53-55. Eggersdorfer et al. does not specifically name propanol.

Smith, however, discloses that propanol is a known carrier for deacidification agents (col.5, lines 41-42) and is safe to use on paper. Therefore, it would have been obvious to one of ordinary skill in the art to use other known lower alcohols, such as propanol, in the method of Eggersdorfer et al..

With respect to the number of oscillating pressure cycles, it is deemed obvious to optimize this number for optimal impregnation of the paper and water removal.

Eggersdorfer et al discloses a vacuum of 50 mbars ("about 40 millibars"). See col.6, line

6. The maximum temperature within the chamber is 60 °C (col.5, line 2). Regardless, as both

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pressure and temperature are result effective variables, it would have been obvious to one in the art to optimize the variables as being readily determinable by routine experimentation.

Similarly, variables such as treatment time, reagent concentration, and the size of the load are result effective and readily determined and optimized by routine experimentation. Moreover, it is deemed obvious to maintain the chamber temperature at a constant in order to avoid unwanted condensation of the solvent vapor.

6. Claims 97, 100-103, 117, and 118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eggersdorfer et al. as applied to claims 87 and 100 above, and further in view of Jackson et al. (U.S. 5,213,619).

Eggersdorfer et al. is silent with respect to preheating the carrier prior to mixing. Jackson et al teaches the use of either cooling coils or ceramic heating bands to provide a mixing chamber temperature most suitable for dissolving the desired faction of reagent into the solvent. See col. 14, lines 17-25. For this reason, it is deemed obvious to heat or cool the solvent container of Eggersdorfer et al. as well.

Eggersdorfer et al. does not teach an automated system. Jackson et al., however, discloses that the entire device should be integrated with a computer system using an analog-digital controller and computer control software and housed and operated in an environmental control enclosure. See col.12, lines 48-65. Moreover, Jackson et al. teaches injectors for accurately mixing the solvent with the reagent. See col.13, lines 52-66. As automating the system removes the possibility of human error and contamination, it would have been an obvious modification to the invention of Eggersdorfer et al..

***Allowable Subject Matter***

7. Claims 95, 96, 105-111, 113, 115, 116, 119, 120, 122, and 123 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. Claims 1, 64, 65, 67-69, 71-81, 83-86, 124, and 125 are allowed.
9. Claims 70 and 82 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
10. The following is a statement of reasons for the indication of allowance and allowable subject matter: The prior art of record, while teaching the use of deacidifying agents in combination with a carrier to deacidify cellosic materials, fails to teach or suggest conveying the carrier into the autoclave before the deacidifying agent, using a carbonate of magnesium di-n-propylate as the deacidifying agent, distillation means or distillation of the residual carrier/deacidifier solution, treating within an atmosphere comprising nitrogen, carbon dioxide, HCF 227 or combinations thereof, treatment within an atmosphere substantially free of oxygen for a duration sufficient to kill substantially all insects and/or insect larvae or for about 4-6 hours, and determining the magnesium distribution in the treated material before and after treatment using a scanning electron microscope.

***Response to Arguments***

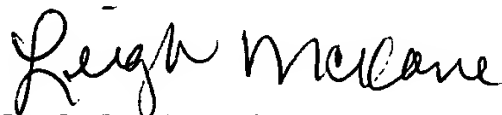
11. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh McKane whose telephone number is 571-272-1275. The examiner can normally be reached on Monday-Thursday (5:30 am-2:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Leigh McKane**  
**Primary Examiner**  
**Art Unit 1744**

elm  
9 January 2006